

Date: Tue, 16 Nov 93 04:30:13 PST
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V93 #112
To: Ham-Ant

Ham-Ant Digest Tue, 16 Nov 93 Volume 93 : Issue 112

Today's Topics:

 Antenna analysis SW recommendations?
 Chimney mounting a triband beam?
 Discones & Polarization
 dual band whip design wanted
 Guide to the Personal Radio Newsgroups
 Wobulators and Goniometers

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 16 Nov 93 01:32:48 GMT
From: ogicse!hp-cv!hp-pcd!hpcvsnz!tomb@network.ucsd.edu
Subject: Antenna analysis SW recommendations?
To: ham-ant@ucsd.edu

Anyone care to offer comments on the antenna analysis software
available at reasonable prices to hams? I'm thinking of
programs to predict patterns and impedances from a set of
descriptions of conductor size and spacings. Comments on
capabilities, performance and user interface (including
documentation) are welcome. Thanks in advance...

73, Tom -- K7ITM

Date: 15 Nov 93 12:10:12 GMT

From: mvb.saic.com!unogate!news.service.uci.edu!usc!howland.reston.ans.net!
darwin.sura.net!spool.mu.edu!bloom-beacon.mit.edu!noc.near.net!news.delphi.com!
BIX.com!arog@network.ucsd.edu
Subject: Chimney mounting a triband beam?
To: ham-ant@ucsd.edu

gary@ke4zv.atl.ga.us (Gary Coffman) writes:

>In article <00974F21433E9900.24604067@drager.com> landisj@drager.com (Joe Landis
- Systems/Network Mgr. - x2621) writes:

>>Hi,

>>I can get a good deal on the following package, used:

>>Mosley TA33 triband beam

>>Heavy duty rotor and controller

>>Create Design 6 ft quad roof tower

>>Thrust bearing

>>

>>I'm not too keen about mounting the quad tower on my roof. I'll probably sell

>>that. Has anyone mounted a tribander to a chimney, using a good mast and a heavy

>>duty strap type mount that one sees used on TV antennas with rotors? What kind

>>of wind load does this puppy have?

>>If I'm crazy, let me know!

You may or may Not be 'crazy'. In general, "pre-code" chimney construction
is Un-reinforced masonry. There are lots of places where there is no
compelling reason (such as earthquakes) to have regulation on them to
require reinforcement.

To mount a substantive wind load on such a beast is indeed, Crazy.

The first issue, however, is the use of the chimney. If it is
used at all, the soot condensation on a still night on the antenna
parts will leave a conductive coating that will load the antenna
(as in impeadance) and reduce the signal that gets to the feedline
on recieve. In transmit, esp at significant power levels, these
largly carbon deposits with provide, in addition to the impeadance
issue, a conductive path that can arc over.

This last is the reason why I don't do this with my antenna.

Now, if the chimney is known to be reinforced and well tied
to the roof/ceiling framing of the house, then it becomes
possible that it will work.

To make a decent engineering evaluation, you will need to
consider a number of things... and this is a quick partial
list:

1. Consider that the force generated by air movement has a factor in the equation that is elevation raised to the seven-thirds power [$h^{7/3}$]. This number gets big fast. The equation also assumes that the earth is smooth, so in almost all cases, the true forces are less.
2. With respect to the structure of the chimney itself, look to the requirements of your local building code. Its probably derived from one of the regional model codes, which would be the BOCA code (and I just don't remember what the initials stand for.)
3. Armed with the info as to how it *SHOULD HAVE BEEN BUILT*, hit the library... possibly a local collage one, and dig for books on "Working Stress design of Masonry" as well as manuals and pamphlets from the Concrete Masonry Association.

In general, the assumptions of working stress design are conservative for this sort of thing such as its assumption that concrete, mortar, and grout have zero strength in tension.

Alan Ogden, w6spk
aog@Bix.Com
co-moderator of ham.radio at Bix
Retired Sr. Building Engineering Inspector.

Date: 15 Nov 93 16:31:10 GMT
From: ogicse!hp-cv!hp-pcd!hpcvsnz!tomb@network.ucsd.edu
Subject: Discones & Polarization
To: ham-ant@ucsd.edu

Robert Casey (wa2ise@netcom.com) wrote:
: In article <2c0v4i\$87k@ornews.intel.com> zardoz@ornews.intel.com (Jim Garver) writes:
: >Wouldn't a Conical Dipole be better in this case? Or is the bandwidth

: Is the UHF TV bowtie antenna (the ones you see hanging on the back of TV sets) a distant relative of this? Only thing is that the manufacturer only supplied 4 elements instead of enough to make a real set of cones.

Yeah, just about the same. Similar to the fact that you can broaden the bandwidth of a wire antenna by making the elements larger diameter, or similarly with a "cage" of wires, or by simply putting several wires parallel all in the same plane, spaced out a distance similar to the "cage" diameter.

Date: 17 Nov 93 01:21:53 GMT
From: ogicse!uwm.edu!wupost!waikato!waikato.ac.nz!barhodes@network.ucsd.edu
Subject: dual band whip design wanted
To: ham-ant@ucsd.edu

Can anyone email or post to this newsgroup a design for a dual band colinear whip antenna with gain around 7-10 db???
I have herd that there a designs around but i have not yet found any.

Thanks

Brucee
ZL1UBR

Date: Mon, 15 Nov 1993 12:00:25 GMT
From: nevada.edu!news.unomaha.edu!news@uunet.uu.net
Subject: Guide to the Personal Radio Newsgroups
To: ham-ant@ucsd.edu

Posted-By: auto-faq 2.4
Archive-name: radio/personal-intro
Revision: 1.5 09/18/93 16:49:31
Changes: new mailing lists, .packet rmgroup, and .policy updates

(Note: The following is reprinted with the permission of the author.)

This message describes the rec.radio.amateur.*, rec.radio.cb, rec.radio.info, and rec.radio.swap newsgroups. It is intended to serve as a guide for the new reader on what to find where. Questions and comments may be directed to the author, Jay Maynard, K5ZC, by Internet electronic mail at jmaynard@oac.hsc.uth.tmc.edu. This message was last changed on 18 September 1993 to add the mailing lists for the new rec.radio.amateur newsgroups, to note the rmgroup of rec.radio.amateur.packet, and to officially retire some (in)famous threads of discussion on rec.radio.amateur.policy.

History
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Way back when, before there was a Usenet, the Internet hosted a mailing list for hams, called (appropriately enough) INFO-HAMS. Ham radio discussions were held on the mailing list, and sent to the mailboxes of those who had signed up for it. When the Usenet software was created, and net news as we now know it was developed, a newsgroup was created for hams: net.ham-radio. The mailing list and the newsgroup were gatewayed together, eventually.

As the net grew, and as packet radio came into vogue, packet discussion began to dominate other topics in the group and on the list. This resulted in the logical solution: a group was created to hold the packet discussion, and another corresponding mailing list was created as well: net.ham-radio.packet and PACKET-RADIO, respectively.

These two groups served for several years, and went through Usenet's Great Renaming essentially unchanged, moving from net.ham-radio[.packet] to rec.ham-radio[.packet]. Readership and volume grew with the rest of the network.

The INFO-HAMS mailing list was originally run from a US Army computer at White Sands Missile Range, SIMTEL20. There were few problems with this arrangement, but one was that the system was not supposed to be used for commercial purposes. Since one of hams' favorite pastimes is swapping gear, it was natural for hams to post messages about equipment for sale to INFO-HAMS/rec.ham-radio. This ran afoul of SIMTEL20's no-commercial-use restriction, and after some argument, a group was created specifically for messages like that: rec.ham-radio.swap. This group wasn't gatewayed to a mailing list, thus avoiding problems.

While all this was happening, other folks wanted to discuss other aspects of the world of radio than the personal communications services. Those folks created the rec.radio.shortwave and rec.radio.noncomm newsgroups, and established the precedent of the rec.radio.* hierarchy, which in turn reflected Usenet's overall trend toward a hierarchical name structure.

The debate between proponents of a no-code ham radio license and its opponents grew fierce and voluminous in late 1989 and 1990. Eventually, both sides grew weary of the debate, and those who had not been involved even more so. A proposal for a newsgroup dedicated to licensing issues failed. A later proposal was made for a group that would cover the many recurring legal issues discussions. During discussion of the latter proposal, it became clear that it would be desirable to fit the ham radio groups under the rec.radio.* hierarchy. A full-blown reorganization was passed by Usenet voters in January 1991, leading to the overall structure we now use.

After the reorganization, more and more regular information postings began to appear, and were spread out across the various groups in rec.radio.*. Taking the successful example of the news.answers group, where informational postings from across the net are sent, the group rec.radio.info was created in

December, 1992, with Mark Salyzyn, VE6MGS, initially serving as moderator.

In January, 1993, many users started complaining about the volume in `rec.radio.amateur.misc`. This led to a discussion about a second reorganization, which sparked the creation of a mailing list by Ian Kluft, KD6EUI. This list, which was eventually joined by many of the most prolific posters to the ham radio groups, came up with a proposal to add 11 groups to the `rec.radio.amateur` hierarchy in April 1993. The subsequent vote, held in May and early June, approved the creation of five groups:
`rec.radio.amateur.digital.misc` (to replace `.packet`), `.equipment`, `.homebrew`, `.antenna`, and `.space`.

The Current Groups

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I can hear you asking, "OK, so this is all neat history, but what does it have to do with me now?" The answer is that the history of each group has a direct bearing on what the group is used for, and what's considered appropriate where.

The easy one is `rec.radio.amateur.misc`. It is what `rec.ham-radio` was renamed to during the reorganization. Any message that's not more appropriate in one of the other groups belongs here, from contesting to DX to ragchewing on VHF to information on becoming a ham.

The group `rec.radio.amateur.digital.misc` is for discussions related to (surprise!) digital amateur radio. This doesn't have to be the common two-meter AX.25 variety of packet radio, either; some of the most knowledgeable folks in radio digital communications can be found here, and anything in the general area is welcome. The name was changed to emphasize this, and to encourage discussion not only of other text-based digital modes, such as AMTOR, RTTY, and Clover, but things like digital voice and video as well. The former group, `rec.radio.amateur.packet`, should be removed by September 21st, 1993. It is obsolete, and you should use `.digital.misc` instead (or the appropriate new mailing list, mentioned below). The group has `.misc` as part of the name to allow further specialization if the users wish it, such as `.digital.tcp-ip`.

The swap group is now `rec.radio.swap`. This recognizes a fact that became evident shortly after the original group was formed: Hams don't just swap ham radio gear, and other folks besides hams swap ham equipment. If you have radio equipment, or test gear, or computer stuff that hams would be interested in, here's the place. Equipment wanted postings belong here too. Discussions about the equipment generally don't; if you wish to discuss a particular posting with the buyer, email is a much better way to do it, and the other groups, especially `.equipment` and `.homebrew`, are the place for public discussions. There is now a regular posting with information on how to go about buying and selling items in `rec.radio.swap`; please refer to it before you post there.

The first reorganization added two groups to the list, one of which is `rec.radio.amateur.policy`. This group was created as a place for all the discussions that seem to drag on interminably about the many rules, regulations, legalities, and policies that surround amateur radio, both existing and proposed. Recent changes to the Amateur Radio Rules (FCC Part 97) have finally laid to rest the Great Usenet Pizza Autopatch Debate as well as complaints about now-preempted local scanner laws hostile to amateurs, but plenty of discussion about what a bunch of rotten no-goodniks the local frequency coordinating body is, as well as the neverending no-code debate, may still be found here.

The other added group is `rec.radio.cb`. This is the place for all discussion about the Citizens' Band radio service. Such discussions have been very inflammatory in `rec.ham-radio` in the past; please do not cross-post to both `rec.radio.cb` and `rec.radio.amateur.*` unless the topic is genuinely of interest to both hams and CBers - and very few topics are.

The `rec.radio.info` group is just what its name implies: it's the place where informational messages from across `rec.radio.*` may be found, regardless of where else they're posted. As of this writing, information posted to the group includes Cary Oler's daily solar propagation bulletins, ARRL bulletins, the Frequently Asked Questions files for the various groups, and radio modification instructions. This group is moderated, so you cannot post to it directly; if you try, even if your message is crossposted to one of the other groups, your message will be mailed to the moderator, who is currently Mark Salyzyn, VE6MGS. The email address for submissions to the group is `rec-radio-info@ve6mgs.ampr.ab.ca`. Inquires and other administrivia should be directed to `rec-radio-request@ve6mgs.ampr.ab.ca`. For more information about `rec.radio.info`, consult the introduction and posting guidelines that are regularly posted to that newsgroup.

The groups `rec.radio.amateur.antenna`, `.equipment`, `.homebrew`, and `.space` are for more specialized areas of ham radio: discussions about antennas, commercially-made equipment, homebrewing, and amateur radio space operations. The `.equipment` group is not the place for buying or selling equipment; that's what `rec.radio.swap` is for. Similarly, the `.space` group is specifically about amateur radio in space, such as the OSCAR program and SAREX, the Shuttle Amateur Radio EXperiment; other groups cover other aspects of satellites and space. Homebrewing isn't about making your own alcoholic beverages at home (that's `rec.crafts.brewing`), but rather construction of radio and electronic equipment by the amateur experimenter.

Except for `rec.radio.swap` and `rec.radio.cb`, all of these newsgroups are available by Internet electronic mail in digest format; send a mail message containing "help" on a line by itself to `listserv@ucsd.edu` for instructions on how to use the mail server.

All of the groups can be posted to by electronic mail, though, by using a gateway at the University of Texas at Austin. To post a message this way, change the name of the group you wish to post to by replacing all of the '.'s with '-'s - for example, rec.radio.swap becomes rec-radio-swap - and send to that name@cs.utexas.edu (rec-radio-swap@cs.utexas.edu, for example). You may crosspost by including multiple addresses as Cc: entries (but see below). This gateway's continued availability is at the pleasure of the admins at UT-Austin, and is subject to going away at any time - and especially if forgeries and other net.abuses become a problem. You have been warned.

A Few Words on Crossposting

=====

Please do not crosspost messages to two or more groups unless there is genuine interest in both groups in the topic being discussed, and when you do, please include a header line of the form "Followup-To: group.name" in your article's headers (before the first blank line). This will cause followups to your article to go to the group listed in the Followup-To: line. If you wish to have replies to go to you by email, rather than be posted, use the word "poster" instead of the name of a group. Such a line appears in the headers of this article.

One of the few examples of productive cross-posting is with the rec.radio.info newsgroup. To provide a filtered presentation of information articles, while still maintaining visibility in their home newsgroups, the moderator strongly encourages cross-posting. All information articles should be submitted to the rec.radio.info moderator so that he may simultaneously cross-post your information to the appropriate newsgroups. Most newsreaders will only present the article once, and network bandwidth is conserved since only one article is propagated. If you make regular informational postings, and have made arrangements with the moderator to post directly to the group, please cross-post as appropriate.

--

Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jmaynard@oac.hsc.uth.tmc.edu | adequately be explained by stupidity.

"If my car ran OS/2, it'd be there by now" -- bumper sticker

GCS d++ p+ c++ l+ m+/- s/++ g++ w++ t+ r

--

73, Paul W. Schleck, KD3FU

pschleck@unomaha.edu

Celebrating 60 years of the Univ. of Maryland ARA - W3EAX (1933-1993)

Date: 15 Nov 93 16:38:03 GMT
From: ogicse!hp-cv!hp-pcd!hpcvsnz!tomb@network.ucsd.edu
Subject: Wobulators and Goniometers
To: ham-ant@ucsd.edu

Chris Cox W0/G4JEC (chrisc@biggus.g4jec.ampr.org) wrote:

: |> In article <CGCIvM.5z1@cup.hp.com> jholly@cup.hp.com (Jim Hollenback) writes:
: |> >Jim Garver (zardoz@ornews.intel.com) wrote:
: |> >: Sacrilegious plastic 450 ohm line. I was unable to find a real wobulator
: |> >: of suitable size, only those dinky ones found in ARC-5 transmitters.
: |> >
: |> >I know what an ARC-5 transmitter looks like, but pray tell, what is
: |> >a wobulator?
: |>

: A wobulator is a device that allows you to use an oscilloscope to
: graphically display the passband response of an amplifier/filter.

: I haven't seen one mentioned (until now!) for about 15 years. They were
: most commonly used to align the IF stages of a receiver.

: They generate a rising RF signal which sweeps between some two limits in
: a linear fashion, whilst concurrently sweeping the o'scope's trace across
: the screen (i.e. replacing the o'scope's internal timebase generator.)

: What one is doing in a transmitter I don't know...

Generating lots of FM ;-) -- Chris' explanation matches what I always
thought a "wobulator" was.

So I looked up "Goniometer" in a dictionary last night: basically, a
device used to measure angles. The context was for measuring the angles
between faces of a crystal, and both contact and optical goniometers
were mentioned.

I suspect the better name for the thing people have been calling a
"wobulator" here, if it is the variable-link coil, is a "variometer."
The dictionary definition of that one was an inductor which consisted
of a fixed coil and a rotatable coil coupled closely to it, wired in
series, so the net inductance could be varied. But it's probably OK
to extend that to a pair of coupled coils with coupling variable by
rotating one of the coils relative to the other.

"Wobulator" (or wobulator) wasn't in the unabridged Webster's I used ;-)

Date: (null)

From: (null)

"wobulator - More commonly called a sweep generator. A signal generator, the frequency of which is varied automatically and periodically over a definite range. It is used, together with a cathode ray tube, for testing frequency response. One form consists of a motor-driven variable capacitor, which is used to vary the output frequency of a signal generator periodically between 2 limits."

I got this book as a premium for buying some kit. It has lots of neat old definitions but not real up to date. The publish date of the one I have is 1984.

Mike, K0TER

Date: 15 Nov 93 21:03:33 GMT

From: ogicse!hp-cv!sdd.hp.com!col.hp.com!jms@network.ucsd.edu

To: ham-ant@ucsd.edu

References <2bttse\$ol@ornews.intel.com>, <CGCIvM.5z1@cup.hp.com>, <2c0ucs\$7q0@ornews.intel.com>

Subject : Re: Wobulators and Goniometers

Jim Garver (zardoz@ornews.intel.com) wrote:

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End of Ham-Ant Digest V93 #112

